

Remarks and Interview Summary

Claim Status

Claims 48-55 and 57-74 remain pending in the application. Claims 48, 50, 51, 52, 53, 54, 55, 58, 59, 60, 61, 62, 63 64, 65, 66 and 68 are amended without prejudice. As can be seen, many of these claims are amended in a purely editorial manner (e.g., claims 52, 53, 55, 62, 65 and 68) and others are amended to conform to their amended base claims (e.g., claims 50, 59, 61 and 64).

In many cases we intend to interchange broad terms. For example, in claim 63 we amended the term “changing” to read --realigning or adjusting for--.

And in claim 66 we have added the terms “fingerprint or signature” and clarified the order of at least some recited acts relative to one another.

Claim 58 is also amended in independent form.

Interview Summary

We greatly appreciate the courtesy extended by Examiner Patel to the undersigned during the November 15, 2006 interview.

The discussion focused on claim 48 and 51. The undersigned discussed that with respect to these claims there is an intended difference between a fingerprint or signature and digital watermarking (and/or steganography).

While the later terms imply, e.g., data hiding or embedding, the former terms (fingerprinting and signature) are intended to imply an identifier, value or characteristic that is derived, calculated or otherwise determined from the media signal itself. For example, a fingerprint or signature may include a reduce-bit representation or hash of the content itself. There are many fingerprinting and signature generating techniques discussed in the specification and those skilled in the art will appreciate others covered by the claims.

The Examiner suggested that the term “changing” be clarified in claims 47 and 51.

The undersigned also discussed how the term metadata in claims 48 and 51 is intended to be associated with - but separate from - the fingerprint or signature and the image data. A related discussion is provided below in the remarks.

Art-based Rejections:

Claims 48-53, 58-65 and 69-72 stand rejected as being unpatentable over Iwamura (U.S. Patent No. 6,425,081) in view of Cox (U.S. Patent No. 5,930,369). Claims 54-55, 57 and 66-67 stand rejected over Gindele (U.S. Patent No. 6,785,421) in view of Cox. And claims 68 and 73-74 stand rejected over Gindele in view of Cox and Iwamura.

We respectfully traverse these rejections.

Rejections over Iwamura in view of Cox*Claim 48*

Amended claim 48 recites that a fingerprint or signature is calculated from data. This occurs after a geometric orientation of the data has been corrected or adjusted for.

The Office Action states that Iwamura fails to disclose changing a geometric orientation of the data. Please see the Office Action on page 3, lines 1-3. We agree. It turns to Cox at Col. 8, lines 11 and 33-47 for this teaching, since “[t]he motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms as suggested by Cox.” See the Office Action on page 3, line 3-9.

We renew our previous objection to the combination of Iwamura and Cox.

As stated in the Interview Summary section, above, claim 48 recites a fingerprint or signature, which is not intended for this claim to cover digital watermarking or steganographic embedding (e.g., modification of data to hide or conceal auxiliary data therein). Fingerprint or signature calculation occurs after a geometric orientation of data has been corrected or adjusted for.

First, we disagree with the motivation, since the claim recites calculating a fingerprint or signature, and not having “a watermarking method be resilient to any distortion”. We see no suggestion or motivation to use the Cox watermarking techniques to correct for distortion to improve signature or fingerprinting calculation.

Second, claim 48 recites that at least a sub-set of the fingerprint or signature is provided to a network resource to identify metadata associated with the image. The metadata is associated with - but separate from - the fingerprint or signature and the image data. For example, the metadata may include a title, artist information, URL, video, copyright information, usage rights, and/or etc. While this metadata is associated with the image, it is separate from the fingerprint (or signature) and the image.

This metadata seems different from the cited Iwamura discussion (Col. 27, lines 39-43 and Col. 28, lines 8-19). That discussion is understood to rely on hashes (and not the metadata claimed), which are not separate from the fingerprint (or signature) and image since they are calculated from the image sought to be verified.

The other deficiencies of the art need not be belabored more.

We respectfully request that claim 48 be allowed.

Claim 51

Claim 51 recites correcting or adjusting for a geometric orientation of the image data, and then interrogating a network resource through use of a fingerprint or signature derived or determined from inherent attributes of image data to identify metadata associated with – but separate from – the image data and the fingerprint or signature. Identified metadata is provided.

Claim 51 should be allowed for at least reasons analogous to those discussed with respect to claim 48. Of course, these claims recite distinct combinations and limitations from one claim should not be read into another.

We respectfully request that claim 51 be allowed.

Claim 58

Claim 58 is amended in independent form without prejudice.

It recites a method of linking an image to metadata contained in a network resource. The method includes: receiving data corresponding to an image; correcting or adjusting for a geometric orientation of the data, wherein the image comprises an orientation component steganographically embedded therein, and wherein said correcting or adjusting for utilizes the orientation component; calculating a fingerprint or signature

identifier from the data; providing at least a sub-set of the identifier to a network resource to identify metadata associated with the image; and receiving from the network resource at least some of the metadata associated with the image.

The proposed combination is believed deficient in teaching or suggesting this combination. Favorable consideration is requested.

Claim 60

Claim 60 recites, in combination with other features, correcting for or realigning a geometric or alignment characteristic of data representing a media signal, and then deriving a fingerprint or signature from the corrected for or realigned data representing the media signal. A network resource is interrogated with at least a sub-set of the fingerprint or signature to identify metadata associated with the media signal.

Like some of the claims discussed above, the terms fingerprint and signature for this claim are not intended to include digital watermarking or steganographic embedding. Thus, we do not think that there is sufficient motivation or suggestion to combine Cox and Iwamura in the manner proposed in the Office Action on page 5, lines 3-5.

Reconsideration is respectfully requested.

Claim 63

Claim 63 recites – in combination with other features – realigning or adjusting for a geometric orientation or alignment characteristic of the media; and then interrogating a network resource through use of a fingerprint or signature derived or determined from inherent attributes of the media to identify metadata associated with the media.

Like some of the claims discussed above, the terms fingerprint and signature for this claim are not intended to include digital watermarking or steganographic embedding.

Thus, we do not think that there is sufficient motivation or suggestion to combine Cox and Iwamura as proposed in the Office Action on page 5.

Reconsideration is respectfully requested.

Rejections over Gindele in view of Cox*Claim 54*

Claim 54 recites – in combination with other features – correcting for distortion in the received image or video data; and then comparing a fingerprint or signature representing inherent characteristics of the corrected image or video data to a plurality of records, wherein each record includes at least image or video characteristics. Upon a successful match with a record, the method identifies metadata associated with – but separate from – the fingerprint or signature and at least one of the record or image (or video) data, and provides identified metadata to a wireless device.

Here again, we do not intend either of the terms “fingerprint or signature” for this claim to cover digital watermarking or steganographic embedding.

Thus, we disagree with the proposed combination – and stated motivation for combining Cox with Gindele. The Office Action states “The motivation for doing so is to apply watermark in the image data where the regions of the spectrum that are least affected by the distortion by correcting, elimination or determining that area.” Please see the Office Action on page 7, lines 2-4.

This does not seem persuasive given recitation of the fingerprint or signature. Other deficiencies need not be belabored at this time.

We respectfully request that claim 54 be allowed.

Claim 66

Claim 66 recites – in combination with other features – correcting for distortion in media; and then interrogating a network resource through use of fingerprint or signature attributes calculated or derived from the corrected media to identify metadata associated with the media.

Like some of the claims discussed above, the terms fingerprint and signature for this claim are not intended to include digital watermarking or steganographic embedding.

Thus, we do not think that there is sufficient motivation or suggestion to combine Cox and Gindele as suggested in the Office Action.

Other deficiencies need not be belabored at this time. And reconsideration is respectfully requested.

Information Disclosure Statement:

An Information Disclosure Statement is filed concurrently herewith. Consideration of the information listed therein is respectfully requested.

Conclusion:

Applicants respectfully request an early Notice of Allowance. The Examiner is invited to contact the undersigned at 503-469-4685 if any questions remain.

(Other deficiencies of the art need not be belabored now. And we object to the repeated suggestion that some of the claims are identical to other claims. Each claim recites its own combination.)

Date: January 12, 2007

Customer No. 23735

Phone: 503-469-4685
FAX 503-469-4777

Respectfully submitted,

DIGIMARC CORPORATION

By: /Steven W. Stewart, Reg. No. 45,133/
Steven W. Stewart
Registration No. 45,133